

## Neurology Publish Ahead of Print

DOI: 10.1212/WNL.000000000200837

### Teaching Video Neurolmage: Bilateral Hemifacial Spasm in Giant Cell Arteritis

#### Author(s):

Elia Sechi, MD<sup>1</sup>; Emmanuel Gallus, MD<sup>1</sup>; Paolo Solla, MD, PhD<sup>1</sup>; Daniele Puggioni, MD<sup>1</sup>; Antonio M. Amadu, MD<sup>1</sup>; Renato Ortu, MD<sup>1</sup>; Marco Piras, MD<sup>1</sup>; Giovanni Defazio, MD, PhD<sup>2</sup>; Gian Luca Erre, MD, PhD<sup>1</sup>

#### Corresponding Author:

Paolo Solla, paolo.solla@aousassari.it

**Affiliation Information for All Authors:** 1. University of Sassari, Sassari, Italy. 2. University of Cagliari, Cagliari, Italy.

#### Equal Author Contribution:

#### Contributions:

Elia Sechi: Drafting/revision of the manuscript for content, including medical writing for content; Major role in the acquisition of data; Study concept or design; Analysis or interpretation of data

Emmanuel Gallus: Major role in the acquisition of data; Analysis or interpretation of data

Paolo Solla: Major role in the acquisition of data; Study concept or design; Analysis or interpretation of data

Daniele Puggioni: Major role in the acquisition of data; Analysis or interpretation of data

Antonio M. Amadu: Major role in the acquisition of data; Analysis or interpretation of data

Renato Ortu: Major role in the acquisition of data; Analysis or interpretation of data

Marco Piras: Major role in the acquisition of data; Analysis or interpretation of data

Giovanni Defazio: Major role in the acquisition of data; Study concept or design; Analysis or interpretation of data

Gian Luca Erre: Major role in the acquisition of data; Study concept or design; Analysis or interpretation of data

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This manuscript will be published in its final form after copyediting, page composition, and review of proofs. Errors that could affect the content may be corrected during these processes.

**Figure Count:**

1

**Table Count:**

0

**Search Terms:**

[ 132 ] Autoimmune diseases, [ 134 ] Vasculitis, [ 308 ] Blepharospasm, Hemifacial spasm

**Acknowledgment:**

The Authors would like to thank the patient for consenting to the use of his medical records, video and pictures for this report.

**Study Funding:**

No targeted funding reported.

**Disclosures:**

The authors report no disclosures relevant to the manuscript.

**Preprint DOI:****Received Date:**

2021-11-12

**Accepted Date:**

2022-04-22

**Handling Editor Statement:**

Submitted and externally peer reviewed. The handling editor was Roy Strowd III, MD, Med, MS.

An 80-year-old man developed bitemporal headache and scalp tenderness. Both temporal arteries were prominent (Figure-A), with “halo-sign” on ultrasonography.<sup>1</sup> Temporal arteritis was diagnosed and oral prednisone (50mg/day) initiated. Three days later, he developed spasms of the orbicularis oculi and frontalis muscles with eyebrow elevation and eye twitching (“other Babinski sign”),<sup>2</sup> consistent with bilateral hemifacial spasm (Video). Brain-MRI and time-of-flight angiography revealed exclusively supratentorial acute infarcts (Figure-BC) without intracranial neurovascular conflicts. Intravenous methylprednisolone

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(1g/day for 5 days) was started with resolution of spasms within 24 hours and clinical stabilization. Temporal artery inflammation may cause facial nerve irritation and hemifacial spasm (Figure-D).

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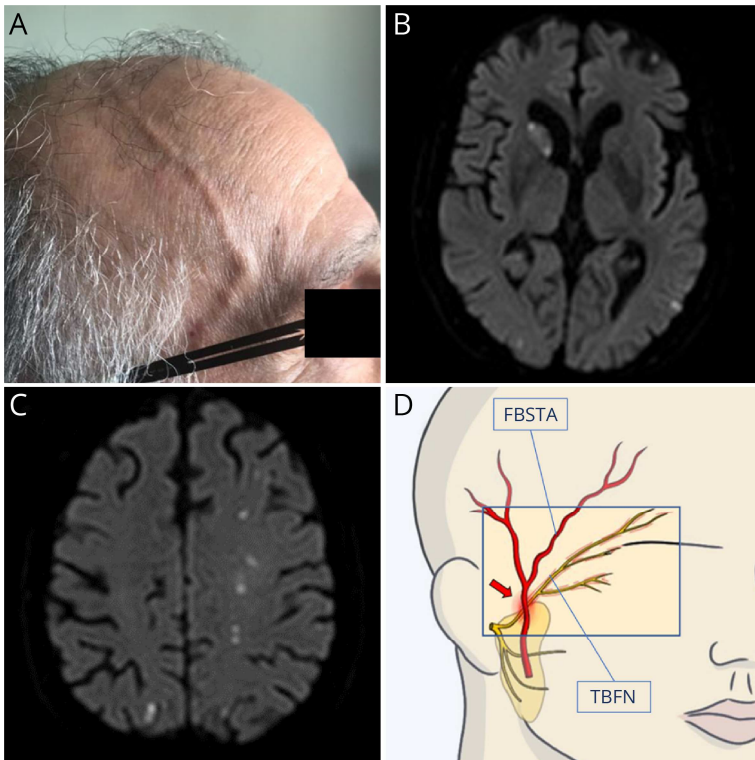
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**Video:** Bilateral hemifacial spasm (right>left).

ACCEPTED

**Figure:** A) Prominent right temporal artery; B-C) Brain-MRI DWI images showing multiple infarcts; D) Pathophysiological hypothesis: TBFN passes in the same anatomical region as the FBSTA and is sometimes injured in temporal artery biopsies (not performed in our patient). Temporal artery inflammation may cause TBFN irritation and hemifacial spasm predominantly involving the upper facial muscles.

*Abbreviations: FBSTA, frontal branch of the superficial temporal artery; TBFN, temporal branch of the facial nerve.*



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*Neurology* published online June 3, 2022

DOI 10.1212/WNL.0000000000200837

**This information is current as of June 3, 2022**

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